

REMARKS

The claims are claims 1, 3 to 6 and 14.

The application has been amended at several locations to correct minor errors and to present uniform language throughout. These amendments include reference to the previously unreferenced drawing elements 506, 507 and 604.

Claims 1, 3 and 6 are amended. Claim 2 and 7 to 13 are canceled. New claim 14 is added. Claim 1 has been amended to include subject matter disclosed in the application at paragraphs [20] to [24] and [39] and illustrated in Figure 5 of the application. Claim 3 has been amended into independent form incorporating the limitations of base claims 1 and 2. Claim 6 had been amended into independent form incorporating the limitations of base claim 1. As amended, claim 6 recites that the first attack portion of the analysis waveform includes the build up to a crescendo and then subsides as taught in the application at paragraph 6. This definition of the attack portion corresponds to attack stage 1402a hold stage 1404 and initial unnatural decay stage 1406 disclosed in Jenkins in conjunction with Figure 14. New claim 14 reciting additional subject matter disclosed in paragraphs [20] to [24] and [39] and illustrated in Figure 5 is added.

Claims 1 and 6 were rejected under 35 U.S.C. 103(a) as made obvious by the combination of Wang et al U.S. Patent No. 5,814,750 and Jenkins U.S. Patent No. 5,744,739.

Claim 1 recites subject matter that is not made obvious by the combination of Wang et al and Jenkins. Claim 1 now recites differing processing of the decay portion of the synthesis waveform based upon whether the duration of synthesis waveform exceeds the duration of the analysis waveform. This subject matter is not taught nor made obvious in Wang et al and Jenkins. Accordingly,

claim 1 is allowable over the combination of Wang et al and Jenkins.

Claim 6 recites subject matter not made obvious by the combination of Wang et al and Jenkins. Claim 6 recites "the second attack portion has a duration approximately equal to a duration of the first attack portion." The OFFICE ACTION states this subject matter is made obvious in the combination of Wang et al and Jenkins without pointing out particular part of either reference including this teaching. The Applicants respectfully submit that Wang et al includes no teaching of the duration of the synthesis waveform attack. Jenkins states at column 23, lines 1 to 17:

"The envelope generator operator parameters (EROM) include an attack type, an attack delta, a time hold, a tremolo depth, an unnatural decay delta, an unnatural decay time count, a natural decay delta, a release delta, an operator gain, and a noise gain. The attack type determines the type of attack. In one embodiment the attack types are selected from among a sigmoidal/dual hyperbolic attack, a basic linear slope attack, and an inverse exponential attack. The attack delta determines the rate at which the attack increases in amplitude. The time hold determines the duration of the hold stage 1404. The tremolo depth determines the amount of amplitude modulation to add to an envelope to create a tremolo effect. The unnatural decay delta determines the amount the envelope amplitude is reduced during the unnatural decay stage 1406. The unnatural decay time count determines the duration of the unnatural decay stage 1406."

The Applicants respectfully submit this disclosure of Jenkins that the type and duration of attack stage 1402, hold stage 1404 and unnatural decay stage 1404 are determined by data stored in envelope generator operator parameter EPROM negates any inference that the synthesis waveform attack is of approximately the same duration as the analysis waveform attack. Thus these references fail to make obvious this language of claim 6.

Claim 3 has been amended into independent form. The OFFICE ACTION stated that claims 3 to 5 would be allowable if so amended.

The Applicants respectfully submit that all the present claims are allowable for the reasons set forth above. Therefore early reconsideration and advance to issue are respectfully requested.

If the Examiner has any questions or other correspondence regarding this application, Applicants request that the Examiner contact Applicants' attorney at the below listed telephone number and address to facilitate prosecution.

Texas Instruments Incorporated
P.O. Box 655474 M/S 3999
Dallas, Texas 75265
(972) 917-5290
Fax: (972) 917-4418

Respectfully submitted,

Robert D. Marshall, Jr.
Robert D. Marshall, Jr.
Reg. No. 28,527